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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/611,177 07/06/00 BARR

H SPIRIT.001A

020995 PM82/1010
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EXAMINER

ART UNIT	PAPER NUMBER
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3644
DATE MAILED:

10/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/611,177

Applicant(s)

BARR, HOWARD

Examiner

T. Dinh

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: In page 4, line 27, it is written that there is a Figure 8. However, there is no figure 8 in the drawings. This seems like an error. Please correct.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3, 8, 12, 13, 16, 17, 19-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2, 3, 12, 13, 19, 20, 23, line 1, "said guidance signals" lack antecedent basis.

In claim 12, line 2, claims 16 and 17, line 1, "said modified guidance signals" lack antecedent.

In claim 8, line 1, "said modified guidance signals" lacks antecedent basis.

Please be consistent with the language terms.

In claim 8, line 2, "their leading edge" is vague and indefinite. What does "their" refer to? Please elaborate why the signals are aligned along the leading edge.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 6, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Jenkins.

Jenkins discloses a control system for a remote-controlled aircraft with a receiver 26, a control module 35 in communication with the receiver to send out modified signal to a control flight system. The control module is a microprocessor/microcontroller with inherently memory such as RAM (well known in today's computer technology) to store instructions. The control flight system is a servo, rudder, elevator, etc. Re claim 6, a straight and level flight is a desired pattern that one skilled in the art could have implemented on the aircraft so that the aircraft can fly to the desired point without causing danger to the aircraft.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 7, 8, 11-14, 16-21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins in view of Meyer.

Jenkins discloses all claimed parts of the invention but is silent on the pulse-width modulated signals and the modified guidance signals to the control system that result in the aircraft entering a predetermined flight pattern in case of an emergency or any other situations. However, Meyer discloses that pulse-width modulated signals and modified guidance signals to change the flight pattern of the aircraft to a predetermined flight pattern in case of emergency or any other situations are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used pulse-width modulated signals and a computerized system in which modified guidance signals to change the flight pattern of the aircraft to a predetermined flight pattern in case of an emergency or any other situations in Jenkins' system as taught by Meyer to allow the aircraft to fly as desired and to prevent the aircraft from crashing.

Re claim 8, it is obvious to one skilled in the art at the time the invention was made to have made the pulse-width modulated signals aligned with the leading edge to allow the aircraft to fly as desired by the pilot.

Re claim 17, at the time the invention was made, it would have been obvious to one skilled in the art to have the aircraft be in a level flight circular pattern to allow the aircraft be in a desired area so that the aircraft can not be lost.

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Re claims 20, 21, at the time the invention was made, it would have been obvious to one skilled in the art to have the aircraft not turn at an angle greater than 20, 30, 40, 50, 69, 70, 80, and 90 to prevent a certain aircraft be out of control.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins in view of Hulsing.

Jenkins discloses all claimed parts of the invention except for the accelerometer. However, Hulsing discloses that accelerometers are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used an accelerometers in Jenkins' system as taught by Hulsing to allow the aircraft to determine its acceleration.

Claims 15 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jenkins as modified by Meyer as applied to claims 11 and 20, 18 above, and further in view of Hulsing.

Jenkins as modified by Meyer discloses all claimed parts of the invention except for the accelerometer. However, Hulsing discloses that accelerometers are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used an accelerometers in Jenkins' system as modified by Meyer and as taught by Hulsing to allow the aircraft to determine its acceleration.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Margolin, Cotton et al, Rhoads et al, and Sheppard et al teach aircraft control systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. Dinh whose telephone number is 703-308-2798. The examiner can normally be reached on Monday Through Friday 8-6, alternate Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Jordan can be reached on 703-306-4159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-306-4195 for regular communications and 703-306-4195 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-4177.

T. Dinh
Examiner
Art Unit 3644

TD
September 28, 2001

TD
9/28/01